

<u>Dates</u>		<u>Topic</u>
Jan. 20-22	<u>Lab 1</u>	Diversity – Print your own copies of exercise and worksheet from Moodle and bring to lab, also bring text to lab
Jan. 27-29	<u>Lab 2</u>	Fetal pigs- the mammalian model for Diversity and Adaptation (bring text to lab) <u>Diversity Worksheet due at beginning of lab</u>
Feb. 3-5		Fetal Pigs Continued <u>Diversity Lab Practical Quiz</u>
Feb. 10-12	<u>Lab 3</u>	Introduction to Plant Biology – Flowers and Stomata Pollen Tube experiment – Testing the Central Dogma <u>Lab practical quiz on pig material</u> <u>Flower worksheet & Stomata Density write-up due by end of lab</u>
Feb. 17-19	<u>Lab 4</u>	Animal Embryology (bring text to lab) <u>Pollen tube write-up due at beginning of lab</u>
Feb. 24-26		Animal Embryology data analysis and presentation <u>Lab practical quiz on Animal Embryology</u>
Mar. 3-5	<u>Lab 5</u>	Crayfish Behavior experiment <u>Behavior write-up due at end of lab</u>
Mar. 10-12	<u>Lab 6</u>	Frog Heart Physiology experiment (2 labs will meet in evenings)
Mar. 17-19		Spring Break
Mar. 24-26	<u>Lab 7</u>	Mesocosm experiment Tree Carbon assignment <u>Frog heart physiology write-up due at beginning of lab</u> <u>Get instructor approval for independent group experiments</u>
Mar. 31-Apr. 2		Work on independent experiments <u>Meoscsm write-up & Tree Carbon worksheet due by 1:00 PM on lab day</u>
Apr. 7-9		Work on independent experiments. April 9-10 is Easter Break All experiments must be done by 4 PM on Wed., April 8
Apr. 14-16		Work on posters
Apr. 21-23	<u>Lab 8</u>	<u>Research posters due.</u> Ecology lab or print posters (depending on weather) <u>Ecology write-up due by end of lab</u>
April 28-30		Ecology lab or print posters (depending on weather); <u>Ecology write-up due by end of lab</u>
Friday, May 1		<u>Research Symposium: poster presentations of experiments</u> Attendance is required

GOALS

After successfully completing this laboratory course, the student should be able to

- 1) recognize and understand some of the diversity of adaptations among living organisms
- 2) describe the basic processes and stages of vertebrate development
- 3) apply the scientific method to the study of animal development, plant growth, physiology, behavior, and ecology, and
- 4) appropriately use references and statistical analyses.

GRADING

Diversity Worksheet	20
Diversity Quiz	10
Pig Quiz	20
Embryology Quiz	10
Embryology analysis & presentation	20
Flower worksheet	10
Stomata Density write-up	10
Pollen tube write-up	10
Physiology write-up	10
Behavior write-up	10
Mesocosm write-up	10
Ecology write-up	10
Tree Carbon assignment	10
Poster Presentation and attendance	<u>50</u>
Total	210

Grades will be assigned according to the following scheme:

100-90% = A to A-	where	80-82% = B-
90-80% = B+ to B-		83-86% = B
80-70% = C+ to C-		87-89% = B+, etc.

All assignments are due on the dates given on the syllabus. Others assignments and due dates may be given in class. Late assignments will be accepted (resulting in mandatory point deductions) only at the discretion of the professor.

ATTENDANCE

Attendance is required. Missed work cannot be made up; a grade of zero will be recorded for missed work. If there are extenuating circumstances, students may be able to attend a different laboratory section **only with advance permission** from **both** the regular professor and the professor whose section the student wishes to attend.